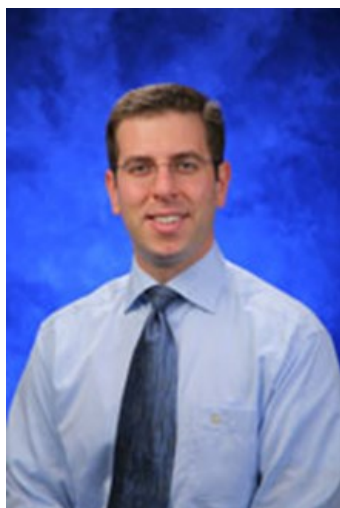


2016 Spring Update

Grantee Publications Highlights



Ian Paul, MD

Publication: Flaherman VJ, Schaefer EW, Kuzniewicz MW, Li SX, Walsh EM, Paul IM. **Early weight loss nomograms for exclusively breastfed newborns.** *Pediatrics*. 2015;135(1):e16-23. Grant #: R40MC26811. Project title: *(SDAS) Early Weight Loss Nomograms for Exclusively Breastfed Newborns*.

A new online tool is the first of its kind to help pediatricians determine whether exclusively breastfed newborns have lost too much weight in the first days after birth. The tool was developed at Penn State College of Medicine through research conducted jointly with University of California, San Francisco. The Newborn Weight Tool or Newt, available at www.newbornweight.org was developed using a research sample of hourly birth weights from more than 100,000 breastfed newborns at Northern California Kaiser Permanente hospitals between 2009 and 2013. The tool plots a baby's weight percentile at any given time in the first few days following birth and compares it with the large sample of newborns. Women do not immediately produce high volumes of breast milk in the first days after childbirth. During this period, almost all babies experience some initial weight loss, which can cause concern from new parents and sometimes even pediatricians. Until now there was no graphical depiction or "growth chart" of early weight loss for exclusively

breastfed newborns to help inform mothers visually of how normal it is for babies to lose weight, but now mothers and pediatric healthcare providers have a tool to demonstrate normal weight loss patterns. An individual mother can see how her newborn compares with these normal patterns, and when concerns are present, get additional lactation support.

Publication: Lindberg L, Maddow-Zimet I, Kost K, Lincoln A. **Pregnancy intentions and maternal and child health: an analysis of longitudinal data in Oklahoma.** *Matern Child Health J*. 2015;19(5):1087-96.

Grant #: R40MC25692. Project title: *(SDAS) The impact of pregnancy intentions on early childhood*.

In a recent study published in the *Maternal and Child Health Journal*, Dr. Laura Lindberg and colleagues examined the association of women's pregnancy intentions with health behaviors and outcomes at three points in time—the prenatal period, immediately postpartum, and early childhood. Using the 2004–2008 Oklahoma Pregnancy Risk Assessment Monitoring System survey and linked data from The Oklahoma Toddler Survey from 2006–2010, the researchers found that the effects of intention status were strongest in the prenatal period and diminished by age two. Both births mistimed by two or more years and unwanted births were less likely than intended births to have a mother who recognized the pregnancy within the first 8 weeks, and to receive early prenatal care; they also had significantly higher chances of exposure to cigarette smoke during pregnancy.

In addition, breastfeeding was significantly less likely among unwanted than intended births. These differentials should further motivate policies to reduce unintended childbearing, as behaviors during the prenatal period can be the foundation for later health and well-being over the life course.



Laura Lindberg, MD



Robert Grundmeier, MD

Publication: Grundmeier RW, Song L, Ramos MJ, Fiks AG, Elliott MN, Fremont A, Pace W, Wasserman RC, Localio R. **Imputing Missing Race/Ethnicity in Pediatric Electronic Health Records: Reducing Bias with Use of U.S. Census Location and Surname Data.** Health Serv Res. 2015;50(4):946-60. Grant #: R40MC24943. Project title: *(SDAS) Primary Care Drug Therapeutics CER in a Pediatric EHR Network.*

Health and healthcare disparities remain a concern for minority children. A better understanding of associations between racial and ethnic disparities could lead to interventions that improve the health of minority children.

Unfortunately, race and ethnicity information for children may be missing in research datasets. Building on a method originally developed by the RAND Corporation, this paper describes a method of using last name and address to determine the most likely race and ethnicity of children. This approach is designed to help researchers when race and ethnicity is known for some children in a dataset, and not for others. Race and ethnicity data that are missing in non-random ways may result in erroneous conclusions. For example, if suburban clinics participating in a study collect race and ethnicity

information but urban clinics do not, researchers may erroneously conclude that minority children have similar health outcomes to white children. The authors found that their new approach was better than traditional methods for handling missing race and ethnicity information in determining the actual associations between race/ethnicity and health outcomes.

Division of Research website

History

MCH Field-Initiated Research Mission

Overview of Funded Projects

<http://www.mchb.hrsa.gov/research/>



Rachel Zamzow,
Neuroscience Doctoral
Student

Publication: Zamzow RM, Ferguson BJ, Stichter JP, Porges EC, Ragsdale AS, Lewis ML, Beversdorf DQ. **Effects of propranolol on conversational reciprocity in autism spectrum disorder: a pilot, double-blind, single dose psychopharmacological challenge study.**

Psychopharmacology (Berl). 2016;233(7):1171-8. Grant #: R40MC19926.

Project titled: *Predictors of effects of propranolol on language & connectivity in autism.* University of Missouri researchers have found that a medication

commonly used to treat high blood pressure and irregular heartbeats may have the potential to improve some social functions of individuals with autism. Led by David Beversdorf, M.D., senior author of the study, and Rachel Zamzow, graduate student with the MU Center for Translational Neuroscience, 20

individuals with autism were recruited from the MU Thompson Center and given either a 40-milligram dose of propranolol or a placebo pill. An hour after administration, the researchers had a structured conversation with the participants, scoring their performance on six social skills necessary to maintain a conversation: staying on topic, sharing information, reciprocity or shared conversation, transitions or interruptions, nonverbal communication and

maintaining eye contact. The researchers found the total communication scores were significantly greater when the individual took propranolol compared to the placebo. Subsequent research is needed to study the effects of more than one dose in a clinical trial setting. However, these preliminary results suggest the possibility of an inexpensive, widely available agent for treatment of autism that could also benefit access to treatment for the underserved.

Publication: Nakao S, Scott JM, Masterson EE, Chi DL. **Non-traumatic dental condition-related emergency department visits and associated costs for children and adults with autism spectrum disorders.** J Autism Dev Disord. 2015;45(5):1396-407. Grant #:

R40MC26198. Project Title: *(SDAS) Dental Homes for Medicaid-Enrolled Children with Autism Spectrum Disorders in the Iowa I-Smile Program.* In a recent study published in the Journal of Autism and Developmental Disorders, Sy Nakao and colleagues at the University of Washington, School of Dentistry examined whether children with autism spectrum disorders (ASD) were more likely to use the emergency department for dental problems than other children. Using data from the 2010 U.S. National Emergency Department Sample, the researchers found that children with ASD were equally as likely as other children to use the emergency department for dental problems, despite evidence that children with ASD are at increased risk for tooth decay. Adults with ASD were significantly less likely to use the emergency department for dental problems than other adults. However, when adults with ASD utilized the emergency department for dental problems, the average cost of these visits was significantly higher than the costs for emergency department for dental problems for other adults. Overall, these findings highlight the importance of developing prevention-oriented public health strategies, including dental home assurance programs, to reduce emergency department use for all individuals with ASD.



Sy Nakao,
Doctoral Student

2016 New Awards

In April 2016, the Maternal and Child Health Bureau, Office of Epidemiology and Research, Division of Research awarded fifteen new extramural research grants: five multiyear grants and ten one-year projects based on secondary data analysis grants. Titles of the newly awarded projects are:

Multiyear Research Projects: 04/01/2016 – 03/31/2019

- Expanding Rural Access to Breastfeeding Support: A Pilot Randomized Controlled Trial. The Rand Corporation. Santa Monica, CA.
- Using a Guided Self-Help Treatment Model for Childhood Obesity Management in the Primary Care Setting. UC-San Diego. La Jolla, CA.
- Mental Health Care Coordination for Transition Aged Youth with Serious Mental Health Conditions. Children's Research Institute. Washington, DC.
- Exercise Intervention for Preventing Perinatal Depression Among Low Income Women. Regents of the University of Minnesota. Minneapolis, MN.
- Care4Moms. UNC-Chapel Hill. Chapel Hill, NC.

Secondary Data Analysis Studies: 04/01/2016 – 08/31/2017

- Patterns of Infant Feeding and Child's Health at Six Years of Age. The University of Memphis. Memphis, TN.
- Racial Disparities in Prevalence of Infertility and Utilization of Fertility Services with a Special Focus on American Indian/Alaska Natives. University of Oklahoma Health Sciences Center. Oklahoma City, OK.
- Emergency Medical Care of Severely Injured US Children. The Research Institute at Nationwide Children's Hospital. Columbus, OH.

- Preventive Health Services and ED Utilization Among At-Risk Infants. Cincinnati Childrens Hospital Med Ctr. Cincinnati, OH.
- A Population-Based Secondary Data Analysis of Short Birth Intervals: Adverse Pregnancy Outcomes, Pregnancy Intention, and Postpartum Contraceptive Use. University of North Carolina at Charlotte. Charlotte, NC.
- Sexual Assault Among College Students: New Insights for Prevention. Regents of the University of Minnesota. Minneapolis, MN.
- Perinatal Outcomes for Pregnant High Utilizers of Unscheduled Hospital-Based Care. Trustees of Boston University, BUMC. Boston, MA.
- Absence of Primary Care in High-Intensity Children with Special Health Care Needs. The Children's Hospital Corporation. Boston, MA.
- Effect of the Affordable Care Act on Pediatric Dental Coverage and Utilization. The Rand Corporation. Arlington, VA.
- Foundations for Smarter Screening: Exploring Patterns of Exposure to Adverse Childhood Experiences and the Protective Influence of Early Intervention on Child Health and Development. University of Arkansas System. Little Rock, AR.

For additional information on these and other activities of the MCH Field-Initiated Research Program, please visit our website: www.mchb.hrsa.gov/research.

EnRICH (Research Innovations & Challenges) Webinars

A series of webinars that feature special topics related to Maternal and Child Health (MCH) research.

Archived 2015 webinars

Marginal Structural Models and Methodological Clarity

https://altarum.adobeconnect.com/_a758956138/enrich120315

- December 3, 2015. Learn how marginal structural models can be used as a tool for epidemiologic investigation. Identify the key concepts in causal inference, including confounding in longitudinal data. Discover how the use of marginal structural models can help us focus our research questions and epidemiologic investigations. Discuss the estimation of parameters of marginal structural models using inverse probability weights

Qualitative Methods for Public Health: An Overview and Introduction

Archive: https://altarum.adobeconnect.com/_a758956138/enrich052715/

- May 27, 2015. This webinar discussed how to critically assess the strengths and weakness of qualitative research papers and evaluation projects. Webinar addresses how to contribute to the development of a qualitative research or evaluation project.

Estimating Absolute Differences and Relative Rate Ratios from Regression Models Webinar

https://altarum.adobeconnect.com/_a758956138/enrich031815

- March 18, 2015. This webinar discussed how to recognize the advantages of absolute contrasts for making causal inferences and for quantifying public health impact. Explain how to understand the disadvantages of odds ratios and how to avoid them.

Using Electronic Health Records for MCH Research

https://altarum.adobeconnect.com/_a758956138/enrich021715

- February 17, 2015. This webinar helps you understand the progress and evolution of pediatric Electronic Health Records (EHR) through nationwide CER2 Electronic Reporting) project.

Division of Research Funded Networks

Autism

- Autism Intervention Research Network on Behavioral Health (AIR-B Network)
- Autism Intervention Research Network on Physical Health (AIR-P Network)
- Developmental Behavioral Pediatrics Research Network (DBPNet)
- Health Care Transitions Research Network for Youth and Young Adults with Autism Spectrum Disorders (HCT-RN)
- Research Network on Promoting Healthy Weight among Children with Autism Spectrum Disorders and Other Special Health Care Needs (HW-RN)

Maternal and Child Health Research

- Bridging the Word Gap Research Network (BGW)
- Confederated Pediatric Electronic Health Record Research Network (CER²)
- Adolescent and Young Adult Health Research Network (AYAH-RN)
- Life Course Research Network (LCRN)
- Measurement Research Network (MRN)
- Pregnancy Related Care Research Network (PRCRN)
- Pediatric Research in Office Settings (PROS)

Other MCHB Research Networks

- Home Visiting Research Network (HVRN) funded by DHVCS
- Pediatric Emergency Care Applied Research Network (PECARN) funded by DCAFH



Current Competitions:

We are pleased to announce that the following Office of Epidemiology and Research, Division of Research funding opportunities are now available at www.grants.gov:

- **HRSA-16-039: The Developmental Behavioral Pediatrics Research Network Program** will establish and maintain a national scientific and clinical research network that will promote and coordinate research activities in developmental, behavioral, and psychosocial aspects of pediatric care to improve clinical services and health and related outcomes for children and adolescents with autism spectrum disorder (ASD) and other developmental disabilities.

Link to find HRSA-16-039:

<http://www.grants.gov/web/grants/view-opportunity.html?oppId=281762>

Closing Date for Applications: Tuesday, April 26, 2016

Upcoming Competitions:

- **HRSA-16-033: Life Course Research Network** is designed to accelerate the translation of the life course theory to MCH practice and policy and foster its rapid adoption into clinical and public health settings through systems integration and collaboration among entities interested in improving MCH outcomes.

Link to find HRSA-16-033: <http://www.grants.gov/web/grants/view-opportunity.html?oppId=281927>

Closing Date for Applications: May 17, 2016

- **HRSA-16-034: The Maternal and Child Health Measurement Research Network** will create a national agenda for health measurement research by producing an evolving compendium of available high quality measures of maternal and child health, and by identifying gaps in existing measures for future development purposes.

Link to find HRSA-16-034: <http://www.grants.gov/view-opportunity.html?oppId=282422>

Closing Date for Applications: May 27, 2016

Links to all application packages are available at www.grants.gov. For technical assistance, please contact the Division of Research Officers listed in the FOA.



click here to join the [Research Listserv](#).

[http://list.nih.gov/cgi-bin/wa.exe?
SUBED1=MCH_RESEARCH_GENERAL&A=1](http://list.nih.gov/cgi-bin/wa.exe?SUBED1=MCH_RESEARCH_GENERAL&A=1)

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Title V, Section 501(a) (2) of the Social Security Act.
Public Health Service Act, § 399BB(f), (42 U.S.C. 280i-1(f)) as amended by the Combating Autism
Reauthorization Act of 2011 (P.L. 112–32), as amended by the Autism CARES Act of 2014.